

--22. The device of claim 21, wherein the contact surface comprises a projection that contacts said switch when the contact surface is in the detent position.

--23. The device of claim 20, wherein said restraint comprises a spring member with a recess that defines the detent position.

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--24. The device of claim 23, wherein the contact surface comprises a projection that fits into said recess when the contact surface is in the detent position.

--25. The device of claim 24, wherein said spring member comprises a leaf spring that is urged radially outward by said projection when said projection is not in said recess.--

R E M A R K S

The specification has been amended to make editorial changes therein to place the application in condition for allowance at the time of the next Official Action.

The Official Action objected to claim 15, which has been amended, and reconsideration and withdrawal of the objection are respectfully requested.

Claims 1-4 were rejected as anticipated by SHIMIZU et al. (JP Laid-open Pub. 58-201178) and the remainder of the claims were rejected as unpatentable over SHIMIZU et al. in view of further references. Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 1 has been replaced with new claim 20 that is believed to avoid these rejections. New claim 20 is directed to a device for detecting a fingerprint of a fingertip placed on a contact surface that moves up and down. A moving element opposes downward movement of the contact surface when the contact surface is pressed downward by a fingertip. A restraint has a detent position at a depressed location of the contact surface and urges the contact surface to remain in the detent position when a first pressure is applied to the contact surface. Significantly, the restraint permits movement of the contact surface below the detent position when pressure on the contact surface is greater than the first pressure and above the detent position when pressure on the contact surface is less than the first pressure. Under this arrangement, the pressure on the contact surface can be maintained at a suitable level when the fingerprint is being detected.

In contrast, SHIMIZU et al. do not disclose a restraint that (a) has a detent position at a depressed location of the contact surface, (b) urges the contact surface to remain in the detent position when a first pressure is applied to the contact surface by a fingertip, and (c) permits movement of the contact surface below the detent position when pressure on the contact surface is greater than the first pressure and above the detent position when pressure on the contact surface is less than the first pressure.

SHIMIZU et al. disclose a device that may have a stop that permits detection of a fingerprint when a predetermined pressure or greater is applied to the contact surface (Figure 2a) or a pressure sensitive device that permits detection of a fingerprint when a pressure of a predetermined range is applied to the contact surface (Figure 2b). Of these, the latter is the more relevant, but even this lacks the restraint with the detent position and that performs the functions noted above. The other references have been reviewed and none disclose a corresponding feature. Accordingly, it is believed that new claim 20 avoids the rejections under §102 and §103.

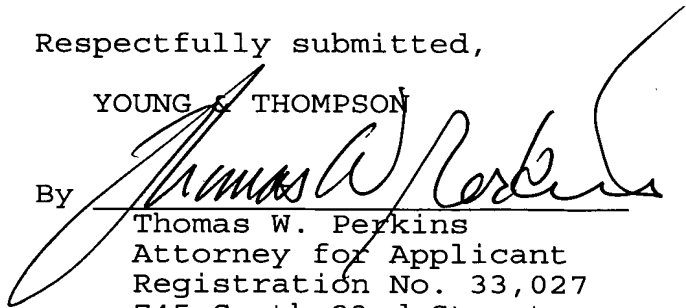
The remainder of the claims are allowable with claim 20. Further, the references alone or in combination do not disclose or suggest the switch of claim 21, the projection of claims 22 and 24, the spring member with a recess as in claim 23, or the spring leaf of claim 24.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

Respectfully submitted,

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